**Instructions**: Complete each of the following as practice.

1. Let $V$ be a vector space with subsets $S, T \subseteq V$. Show each of the following.
   (a) $S \subseteq \operatorname{span}(S)$ (also: why didn't I write "$S \leq \operatorname{span}(S)$"?)
   (b) $\operatorname{span}(\operatorname{span}(S)) = \operatorname{span}(S)$
   (c) If $S \subseteq T$, then $\operatorname{span}(S) \leq \operatorname{span}(T)$.
   (d) If $W \leq V$ and $S \subseteq W$, then $\operatorname{span}(S) \leq W$.
2. For further exercises, see the following (note: this list may break with future versions of these textbooks).
   (a) Beezer NONE
   (b) Hefferon page 103 (problems 2.22 – 2.49)
   (c) Matthews NONE